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EXAMINER	
TRUONG, LOAN	
ART UNIT	**PAPER NUMBER**
2114	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/735,412	Applicant(s) DOMBROWA ET AL.	
	Examiner LOAN TRUONG	Art Unit 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 28-29 recites the limitation "the medium" of claim 11. There is insufficient antecedent basis for this limitation in the claim. Examiner suggests amending "medium" to "method".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 9 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Liberty et al. (US 2005/0060619).

In regard to claim 1, Liberty et al. disclosed a distributed network having a plurality of processors, the network hardware and software comprising:

a local counter (*local time counter, fig. 1, paragraph 0018)* associated with each of the processors (*system processor, fig. 1, paragraph 0018)* in the distributed network (*electronic device may be a multiprocessor system, paragraph 0026)*;

an event register (*error register, fig. 1, paragraph 0018)* associated with each of the local counters (*local time counter, fig. 1, paragraph 0018)*; and

an event logger (*controlling processor, fig. 1, 4, paragraph 0019)* for receiving a counter value from the local counter (*local time counter that is associated with the chips is used to generate a time stamp, fig. 2, 52, paragraph 0020)* in response to an event (*errors are detected, fig. 2, 50, paragraph 11)* being registered in the event register (*error register, fig. 1, paragraph 0018).*

In regard to claim 2, Liberty et al. disclosed the distributed network of claim 1 comprising a global clock (*OS time clock, fig. 1, 6, paragraph 0018 lines 4-6)* wherein a time stamp is calculated based on the counter value (*timestamp generated from local time counter, fig. 2, 52, paragraph 0020 lines 11-18)* received from a counter (*local time counter, fig. 1, paragraph 0018)* associated with a processor (*system processor, fig. 1, paragraph 0018)* in the distributed network (*electronic device may be a multiprocessor system, paragraph 0026).*

In regard to claim 3, Liberty et al. disclosed the distributed network of claim 1 wherein the event logger (*controlling processor, fig. 1, 4, paragraph 0019)* records data concerning a

type of event registered (*hardware errors, paragraph 0020 lines 11-13)* by the event register (*error register, fig. 1, paragraph 0018)* and a time an event occurred (*time stamp, fig. 2, 52, paragraph 0020).*

In regard to claim 9, Liberty et al. disclosed the network of claim 1 wherein the event register (*error register, fig. 1, paragraph 0018)* comprises an error time stamp register that receives a value from the local counter when an event occurs (*time stamp is the value of the local time counter at the time of the detected event/error, paragraph 0020).*

In regard to claim 18, Liberty et al. disclosed a distributed computer system having hardware and software for implementing a time stamping process for producing a time stamp associated with an occurrence of an error event, the computer system comprising:

a plurality of local counters (*local time counter, fig. 1, 30, 32, 34, 36, 38, paragraph 0018)* wherein each counter is associated with a particular processor or system in the distributed computer system (*chip, fig. 1)*;

an event register (*error register, fig. 1, paragraph 0018)* for recording event information concerning an occurrence of an event associated with the processor and event register (*the error is stored in the local error register and normalized timestamp are reported to processor, paragraph 0024)*; and

an event logger (*controlling processor, fig. 1, 4, paragraph 0019)* for receiving and logging information (*local time counter that is associated with the chips is used to generate a*

time stamp, fig. 2, 52, paragraph 0020) concerning the occurrence of the events (*errors are detected, fig. 2, 50, paragraph 11).*

In regard to claim 19, Liberty et al. disclosed the distributed computer system of claim 18 comprising a global clock (*OS time clock, fig. 1, 6, paragraph 0018 lines 4-6)* for synchronizing the local counters (*processor determine offset time between the time indicated by a selected time base and the local time counter, paragraph 0018).*

In regard to claim 20, Liberty et al. disclosed the distributed computer system of claim 19 wherein the event logger (*controlling processor, fig. 1, 4, paragraph 0019)* records a time stamp based upon the global clock and a local counter value received from a local counter (*time stamp is the value of the local time counter at the time of the detected event/error, paragraph 0019).*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 4, 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty et al. (US 2005/0060619) in further view of Coyle et al. (US 6,546,507).

In regard to claim 4, Liberty et al. does not teach the distributed network of claim 1 wherein the event register (*error register, fig. 1, paragraph 0018)* remains frozen until the event register is read by the system monitor (*controlling processor configure and diagnose the system, fig. 1, 4, paragraph 0019).*

Coyle et al. teach the method and apparatus for operational envelope testing of busses to identify halt limits by freezing the content of the shadow register until it's contents can be read out by the service processor (*fig. 6, 624, 620, col. 14 lines 49-56).*

It would have been obvious to modify the system of Liberty et al. by adding Coyle et al. teach the method and apparatus for operational envelope testing of busses to identify halt limits. A person of ordinary skill in the art at the time of applicant's invention would have been motivated to make the modification because it would provide a first failure capture mechanism that captures the operating information, which is useful to isolate a transient error (*col. 14 lines 36-39).*

In regard to claim 11, Liberty et al. teach a method of producing a time stamp for an event occurring on a distributed network including a plurality of processors comprising:

producing a local counter value for each of a plurality of processors (*system processor, fig. 1, paragraph 0018)* in the distributed network (*electronic device may be a multiprocessor system, paragraph 0026)* with an associated counter (*local time counter, fig. 1, paragraph 0018)*;

synchronizing (*normalized, paragraph 0021)* the local counter at each of the processors with a global clock (*operating system clock, fig. 1, 6, paragraph 0018, chips are reset so that the local time counter are equal to the Time Base, fig. 3, 66, paragraph 0021)*; and

Liberty et al. does not teach the method of freezing the local counter for a processor when a critical event associated with the processor occurs.

Coyle et al. teach the method and apparatus for operational envelope testing of busses to identify halt limits by freezing the content of the shadow register until it's contents can be read out by the service processor (*fig. 6, 624, 620, col. 14 lines 49-56).*

Refer to claim 4 for motivational statement.

In regard to claim 23, Liberty et al. teach a computer-executable medium comprising instructions for producing a time stamp for an event occurring on a distributed network including a plurality of processors, the medium comprising instructions for:

producing a local counter value (*time value, paragraph 0018 lines 10-13)* for each of a plurality of processors (*chip, fig. 1)* in the distributed network with an associated counter (*local time counter, fig. 1, 30, 32, 34, 36, 38, paragraph 0018)*;

synchronizing the local counter (*offset in time between time based and local time counter, paragraph 0018)* at each of the processors (with a global clock (*OS time clock, fig. 1, 6, paragraph 0018 lines 4-6)*; and

Liberty et al. does not teach a computer-executable medium comprising: freezing the local counter for a processor when an event associated with the processor occurs.

Coyle et al. teach the method and apparatus for operational envelope testing of busses to identify halt limits by freezing the content of the shadow register until it's contents can be read out by the service processor *(fig. 6, 624, 620, col. 14 lines 49-56)*.

Refer to claim 4 for motivational statement.

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4. Claims 5-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty et al. (US 2005/0060619) in further view of Touboul (US 6,125,390).

In regard to claim 5, Liberty et al. does not teach the distributed network of claim 1 comprising dynamic masking mechanisms for filtering the event register outputs to differentiate between critical and non-critical events.

Touboul disclosed the system of monitoring and controlling in a network by the event tables manager and editor, which allows the administrator to edit and/or manage the event tables. These tables specify various control function, most importantly the masking specifications to determine which events are to be reported over the network *(col. 15 lines 1-6)*.

It would have been obvious to modify the system of Liberty et al. by adding Touboul system of monitoring and controlling in a network by the event tables manager

and editor. A person of ordinary skill in the art at the time of applicant's invention would have been motivated to make the modification because it would allows the administrator to schedule procedures which automatically initiate housekeeping tasks required to ensure that programs continuously run smoothly, prevents problem reoccurrences and ensure safe operation by designating correction procedures which react to the appearance of smaller problems to prevent the occurrence of bigger problems (*col. 4 lines 17-30)*.

In regard to claim 6, Libery et al. does not teach the network of claim 5 wherein the masking is dynamically updated during online processing.

Touboul teaches the system of monitoring and controlling in a network by the event tables manager and editor, which allows the administrator to edit and/or manage the event tables. These tables specify various control function, most importantly the masking specifications to determine which events are to be reported over the network (*col. 15 lines 1-6)*. Furthermore, the application control module (ACP) let the administrator view or update on the remote workstation without disturbing the end user (*col. 15 lines 34-39)*.

Refer to claim 5 for motivational statement.

In regard to claim 10, Liberty et al. teach the network of claim 1 wherein the event register (*error register, fig. 1, paragraph 0018)* stores an error occurred value (*error and timestamp, fig. 54, 54)* that indicates to the network monitor (*controlling processor configure and diagnose the system, fig. 1, 4, paragraph 0019)*.

Liberty et al. does not teach the network wherein the event register stores a critical event that has occurred.

Touboul teaches the system of monitoring and controlling in a network by the event tables manager and editor, which allows the administrator to edit and/or manage the event tables. These tables specify various control function, most importantly the masking specifications to determine which events are to be reported over the network (*col. 15 lines 1-6)*.

Refer to claim 5 for motivational statement.

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5. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty et al. (US 2005/0060619) in further view of Haas et al. (US 2003/0005149).

In regard to claim 7, Liberty et al. does not teach the network of claim 1 comprising software for performing conditional probability calculations based on event information stored in a history table wherein the calculations are performed to determine if a probability of an event occurring has exceeded a minimum threshold level and, if the threshold is exceeded, to migrate a process or schedule maintenance to avoid consequences of the predicted event.

Haas et al. teach the independent-tree ad hoc multicast routing system where probabilistic analysis is conducted to find the correlation of the failure times of two edges sharing a common node (*paragraph 0032)* and a mechanism to replace trees by

replenished the backup tree set to maintain quality of service by maintaining the probability of interruptions below some threshold *(paragraph 0036)*.

It would have been obvious to modify the system of Liberty et al. by adding Haas et al. teach the independent-tree ad hoc multicast routing system where probabilistic analysis is conducted to find the correlation of the failure times of two edges sharing a common node. A person of ordinary skill in the art at the time of applicant's invention would have been motivated to make the modification because it would minimize communication interruption due to failures *(paragraph 0004)*.

In regard to claim 8, Liberty et al. does not teach the network of claim 7 wherein the conditional probability calculations are based upon events occurring within a selected time window.

Haas et al. teach the independent-tree ad hoc multicast routing where probability analysis for the total time for which the set of trees last *(paragraph 0032 lines 7-10, paragraph 0033 and paragraph 0034)*.

Refer to claim 7 for motivational statement.

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6. Claims 12-15, 21-22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty et al. (US 2005/0060619) in further view of Coyle et al. (US 6,546,507) in further view of Lenny et al. (US 6,600,614).

In regard to claim 12, Liberty et al. and Coyle et al. does not teach the method of claim 11 comprising establishing a history table containing information concerning events associated with the critical event and the conditional probabilities of the associated events during offline processing.

Lenny et al. teach the method of critical event log wherein the off-line data collection mode is performed to log events corresponding to predefined critical events (*TABLE 3, col. 11 lines 26-32*). Furthermore, SMART is a reliability predictive technology for predicting or anticipating a failure (*col. 5 lines 61-67*) wherein SMART Error Logging is an extension of SMART for reporting a record of the most recent errors (*col. 6 lines 36-42*).

It would have been obvious to modify the system of Liberty et al. by and Coyle et al. by adding Lenny et al. teach the method of critical event log. A person of ordinary skill in the art at the time of applicant's invention would have been motivated to make the modification because it would prevent loss of time or data due to failure (*col.5 lines 60-63*).

In regard to claim 13, Liberty et al. and Coyle et al. does not teach the method of claim 12 comprising determining during an offline phase if an event is critical and whether or not online processing is possible.

Lenny et al. teach the method of critical event log wherein the off-line data collection mode is performed to log events corresponding to predefined critical events

(TABLE 3, col. 11 lines 26-32). Furthermore, SMART is a reliability predictive technology for predicting or anticipating a failure *(col. 5 lines 61-67)* wherein SMART Error Logging is an extension of SMART for reporting a record of the most recent errors *(col. 6 lines 36-42).*

Refer to claim 12 for motivational statement.

In regard to claim 14, Liberty et al. and Coyle et al. does not teach the method of claim 12 comprising dynamically filtering the events based on a recorded history of information associated with the occurrence of events such that only certain critical events produce global interrupts.

Lenny et al. teach the method of critical event log wherein SMART is a reliability predictive technology for predicting or anticipating a failure *(col. 5 lines 61-67)* wherein SMART monitors a series of attributes that are indicators of an electronic or mechanical component failure. These attributes are chosen specifically for each individual model *(col. 6 lines 6-10).*

Refer to claim 12 for motivational statement.

In regard to claim 15, Liberty et al. and Coyle et al. does not teach the method of claim 12 comprising updating the conditional probability information and history table during offline processing.

Lenny et al. teach the method of critical event log wherein the off-line data collection mode is performed to log events corresponding to predefined critical events (*TABLE 3, col. 11 lines 26-32)* in SMART Error Logging (*col. 6 lines 39-42)*.

Refer to claim 12 for motivational statement.

In regard to claim 21, Liberty et al. and Coyle et al. does not teach the distributed computer system of claim 18 comprising dynamic masks created based upon historical event information for filtering events such that only information concerning critical events result is stored.

Lenny et al. teach the method of critical event log wherein SMART is a reliability predictive technology for predicting or anticipating a failure (*col. 5 lines 61-67)* wherein SMART monitors a series of attributes that are indicators of an electronic or mechanical component failure. These attributes are chosen specifically for each individual model (*col. 6 lines 6-10)*.

Refer to claim 12 for motivational statement.

In regard to claim 22, Liberty et al. and Coyle et al. does not teach the distributed computer system of claim 21 comprising software for evaluating events based on conditional probabilistic calculations and scheduling remedial or preventative action during online processing.

Lenny et al. teach the method of critical event log wherein SMART is a reliability predictive technology for predicting or anticipating a failure (*col. 5 lines 61-67)* wherein

SMART monitors a series of attributes that are indicators of an electronic or mechanical component failure (*col. 6 lines 6-10).* Furthermore, SMART generates alarm signal and if the report status signal imminent failure, the host computer sends an alarm to the end user or the system administrator for schedule of downtime, backup data and replacement of the disk drive (*col. 6 lines 18-27).*

Refer to claim 12 for motivational statement.

In regard to claim 24, Liberty et al. teach the medium of claim 23 comprising an instruction for monitoring the local counter (*local time counter, fig. 1)* with a system monitor through the use of online and offline processing.

Liberty et al. and Coyle et al. does not teach the medium comprising a system monitor through the use of online and offline processing.

Lenny et al. teach the method of critical event log wherein SMART is a reliability predictive technology for predicting or anticipating a failure (*col. 5 lines 61-67)* wherein SMART Critical Event Logging operations during on-line and off-line mode (*col. 10 lines 32-48).*

Refer to claim 12 for motivational statement.

In regard to claim 25, Liberty et al. and Coyle et al. does not teach the medium of claim 23 comprising an instruction for periodically polling the local counters and storing information received in a history table.

Lenny et al. teach the method of critical event log wherein SMART is a reliability predictive technology for predicting or anticipating a failure *(col. 5 lines 61-67)* wherein SMART Critical Event Logging operations in monitoring mode *(fig. 3, 302, col. 11 lines 27-33).*

Refer to claim 12 for motivational statement.

In regard to claim 26, Liberty et al. and Coyle et al. does not teach the medium of claim 23 comprising an instruction for dynamically filtering the events based on a recorded history of information associated with the occurrence of events such that only critical events are reported to a system monitor.

Lenny et al. teach the method of critical event log wherein SMART is a reliability predictive technology for predicting or anticipating a failure *(col. 5 lines 61-67)* wherein SMART monitors a series of attributes that are indicators of an electronic or mechanical component failure. These attributes are chosen specifically for each individual model *(col. 6 lines 6-10).*

Refer to claim 12 for motivational statement.

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7. Claims 16 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty et al. (US 2005/0060619) in further view of Coyle et al. (US 6,546,507) in further view of Touboul (US 6,125,390).

In regard to claim 16 Liberty et al. and Coyle et al. does not teach the method of claim 11 comprising determining during online processing a type of event that occurred and determining whether to produce a global alert, synch stop or machine check alert signal based upon the type of event that occurred.

Touboul teach the system of monitoring and controlling in a network by implementing interrupts and triggers in response to an error conditions or a predefined conditional command set up by an administrator (*Table 1-3, col. 7-9)*

Refer to claim 5 for motivational statement.

In regard to claim 28, Liberty et al. and Coyle et al. does not teach the medium of claim 11 comprising an instruction for determining a type of event that occurred and determining whether to produce a global alert, synch stop or machine check alert signal based upon the type of event that occurred.

Touboul teach the system of monitoring and controlling in a network by implementing interrupts and triggers in response to an error conditions or a predefined conditional command set up by an administrator (*Table 1-3, col. 7-9)*

Refer to claim 5 for motivational statement.

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8. Claims 17 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty et al. (US 2005/0060619) in further view of Coyle et al. (US 6,546,507) in further view of Touboul (US 6,125,390) in further view of Ramamurthi (US 5,251,144).

In regard to claim 17, Liberty et al and Coyle et al. does not teach the method of claim 11 comprising dynamically masking events that occur based on conditional probabilistic calculations using machine learning algorithms to predict an occurrence of a critical event during a specified time period.

Touboul teaches the system of monitoring and controlling in a network by the event tables manager and editor, which allows the administrator to edit and/or manage the event tables. These tables specify various control function, most importantly the masking specifications to determine which events are to be reported over the network *(col. 15 lines 1-6).*

Refer to claim 5 for motivational statement.

Liberty et al, Coyle et al. and Touboul does not teach the method of conditional probabilistic calculations using machine learning algorithms.

Ramamurthi teach the method of utilizing a real time expert system for tool life prediction and tool wear diagnostic by implementing a knowledge based *(fig. 4)* and conditional probability calculation *(col. 10 lines 40-54).*

It would have been obvious to modify the system of Liberty et al., Coyle et al. and Touboul by adding Lenny et al. teach the method of critical event log. A person of ordinary skill in the art at the time of applicant's invention would have been motivated

enable a real-time expert system to learn and provide detail analysis of pertinent data to extract features and subjective estimate of the conditional probability distributions for the knowledge base *(col. 2 lines 54-60).*

In regard to claim 29. Liberty et al and Coyle et al. does not teach the medium of claim 11 comprising an instruction for dynamically masking events that occur based on conditional probabilistic calculations using machine learning algorithms.

Touboul teaches the system of monitoring and controlling in a network by the event tables manager and editor, which allows the administrator to edit and/or manage the event tables. These tables specify various control function, most importantly the masking specifications to determine which events are to be reported over the network *(col. 15 lines 1-6).*

Refer to claim 5 for motivational statement.

Liberty et al, Coyle et al. and Touboul does not teach the method of conditional probabilistic calculations using machine learning algorithms.

Ramamurthi teach the method of utilizing a real time expert system for tool life prediction and tool wear diagnostic by implementing a knowledge based *(fig. 4)* and conditional probability calculation *(col. 10 lines 40-54).*

Refer to claim 17 for motivational statement.

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9. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty et al. (US 2005/0060619) in further view of Coyle et al. (US 6,546,507) in further view of Lenny et al. (US 6,600,614) in further view of Haas et al. (US 2003/0005149).

In regard to claim 27, Liberty et al. and Coyle et al. does not teach the medium of claim 23 comprising an instruction for performing conditional probability calculations to determine if a probability that a critical event will occur exceeds a threshold level and performing or scheduling preventative action if such threshold is exceeded.

Lenny et al. teach the method of critical event log wherein SMART is a reliability predictive technology for predicting or anticipating a failure (*col. 5 lines 61-67)* wherein SMART monitors a series of attributes that are indicators of an electronic or mechanical component failure (*col. 6 lines 6-10).* Furthermore, SMART generates alarm signal and if the report status signal imminent failure, the host computer sends an alarm to the end user or the system administrator for schedule of downtime, backup data and replacement of the disk drive (*col. 6 lines 18-27).*

Refer to claim 12 for motivational statement.

Liberty et al., Coyle et al. and Lenny et al. does not teach the medium comprising an instruction for performing conditional probability calculations to determine if a probability that a critical event exceeds a threshold level.

Haas et al. teach the independent-tree ad hoc multicast routing system where probabilistic analysis is conducted to find the correlation of the failure times of two edges sharing a common node (*paragraph 0032)* and a mechanism to replace trees by

replenished the backup tree set to maintain quality of service by maintaining the probability of interruptions below some threshold (*paragraph 0036*).

Refer to claim 7 for motivational statement.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Loan Truong whose telephone number is (571) 272-2572. The examiner can normally be reached on M-F from 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Loan Truong
Patent Examiner
AU 2114

SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER